

REMARKS

Applicants cancel claims 3-27 and submit claims 28-30. Claims 1-2 and 28-30 are now pending in the application. Applicants amend claim 1 to incorporate features that correspond to claims 6 and 11; submit claim 28 to incorporate features that correspond to those of claims 1, 9, and 11; submit claim 29 to incorporate features that correspond to those of claims 1 and 13; and submit claim 30 to incorporate features that correspond to those of claims 1 and 14. Applicants refer to page 19, line 21 to page 23, line 4 in the specification for description of exemplary embodiments of and support for the claimed invention. No new matter has been added.

Applicants respectfully request that the Examiner acknowledge the priority claim and the receipt of all certified copies of the priority documents for this application. Applicants also request that the Examiner indicate acceptance of the drawings.

Claims 1 and 2 (and apparently claims 20 and 21) stand rejected under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 4,630,304 to Borth et al. (I); claims 16-17 were rejected under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 4,630,305 to Borth et al. (II); claims 3, 9, 22, and 24 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Borth et al. (I) in view of U.S. Patent No. 6,862,567 to Gao; claim 4 was rejected under 35 U.S.C. § 103(a) as being unpatentable over Borth et al. (I) in view of U.S. Patent No. 5,774,849 to Benyassine et al.; claims 5 and 10 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Borth et al. (I) in view of U.S. Patent No. 5,189,701 to Jain; claim 6 was rejected under 35 U.S.C. § 103(a) as being unpatentable over Borth et al. (I) in view of U.S. Patent No. RE36683 to Tsutsui; claim 7 was rejected under 35 U.S.C. § 103(a) as being unpatentable over Borth et al. (I) in view of U.S. Patent No. 5,666,466 to Lin et al.; claims 8 and 23 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Borth et al. (I) in view of U.S. Patent No. 6,999,520 to Reina; claims 11-12 and 25 were

rejected under 35 U.S.C. § 103(a) as being unpatentable over Borth et al. (I) in view of U.S. Patent No. 5,581,658 to O'Hagan et al.; claims 13-14 and 26-27 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Borth et al. (I) in view of U.S. Patent Application Publication No. 2003/0198304 to Sugar et al.; claim 15 was rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent Application Publication No. 2002/0188445 to Li in view of Borth et al. (I); and claims 18-19 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Li in view of U.S. Patent No. 5,920,834 to Sih et al.

The Examiner relied upon the description of an energy valley (i.e., level) detector in Borth et al. (I) as alleged disclosure of the claimed features with respect to flatness evaluation. Applicants respectfully submit that the described energy valley detection clearly do not disclose the claimed flatness factor generating features

The Examiner cited a number of combining references that allegedly suggest the respective additional features of the dependent claims. Applicants respectfully submit that the Examiner has failed to establish a prima facie case of obviousness in failing to establish any motivation or suggestion in the respective references to combine the disparate features for achieving different objectives described in the respective combining references to modify the energy valley detection described in Borth et al.(I) to suggest the features of the claimed invention.

And correspondingly, even assuming, arguendo, that it would have been obvious to one skilled in the art to combine the references at the time the claimed invention was made, such combinations would still have failed to disclose or suggest the claimed flatness evaluation and corresponding talkspurt determination features.

In other words, such combinations would still have failed to disclose or suggest,

“[a] voice activity detector that detects talkspurts in an input signal, comprising:

a frequency spectrum calculator that calculates a frequency spectrum of the input signal;

a flatness evaluator that finds a maximum value of the frequency spectrum, adds up differences between spectral components and the maximum value thereof, and generates the resulting sum of the differences as a flatness factor indicating flatness of the frequency spectrum, wherein said flatness evaluator calculates an average of spectral components of the input signal, normalizes the resulting sum of the differences by dividing by the calculated average, and outputs a normalized flatness factor; and

a voice/noise discriminator that determines whether the input signal contains a talkspurt, by comparing the normalized flatness factor of the frequency spectrum with a predetermined threshold,” as recited in claim 1. (Emphasis added)

Advantageously, the claimed invention provides for voice/noise discrimination with more accurate identification of talkspurts using normalized flatness factors.

Accordingly, Applicants respectfully submit that claim 1, together with claim 2 dependent therefrom, is patentable over Borth et al. and the cited combining references, separately and in combination, for at least the foregoing reasons. Claim 28 incorporates features that correspond to those of claim 1 cited above, and is, therefore, patentable over the cited references for at least the same reasons. Correspondingly, Applicants respectfully submit that claims 29-30 are patentable over the cited references for at least the foregoing reasons in view of the features recited therein.

In view of the remarks set forth above, this application is in condition for allowance which action is respectfully requested. However, if for any reason the Examiner should consider this application not to be in condition for allowance, the Examiner is respectfully requested to telephone the undersigned attorney at the number listed below prior to issuing a further Action.

Any fee due with this paper may be charged to Deposit Account No. 50-1290.

Respectfully submitted,

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